

## **DETAILED ACTION**

### ***Drawings***

1. The drawings filed on 12/04/2008 are acceptable and have been entered into record.

### ***Examiner's Amendment***

2. Authorization for this examiner's amendment was given in a telephone interview with Attorney, Peter A. Balnave, Registration No. 46,199 on December 17, 2008 to amend specification.

Please amend the specifications as following:

Delete the paragraph 0046 provided on 8/21/2007.

~~{0046} In addition, the embodiments of the invention provide a program storage device readable by computer, tangibly embodying a program of instructions executable by the computer to perform a method of incrementally maintaining algebraic functions in automatic summary tables (ASTs) of at least one relational database, said method comprising: associating a work area with each algebraic function in each AST; populating variables within each work area for each algebraic function when each AST is created and when each AST is updated; maintaining each work area by adding and subtracting to and from associated variables of each work area when associated data changes in said relational database; and computing each algebraic function.~~

Further delete the references section on pages 14 and 15 of the specification which was provided on 8/19/2003.

## REFERENCES

- 1.——J.A. Blakeley et al., "Efficiently Updating Materialized Views", *Proceedings of SIGMOD*, pp. 61-71, 1986.
- 2.——J. Gray et al., "Data Cube: A Relational Aggregation Operator Generalizing Group-By, Cross-Tab, and Sub-Total," *In Proceedings of IEEE International Conference on Data Engineering*, pp. 152-159, 1996.
- 3.——A. Gupta et al., "Maintenance of Materialized Views: Problems, Techniques, and Applications," *IEEE Data Engineering Bulletin, Special Issue on Materialized Views and Warehousing*, 18 (2): 3-19, 1995.
- 4.——I. Mumick et al., "Maintenance of Data Cubes and Summary Tables in a Warehouse," *In Proceedings of SIGMOD*, May, 1997.
- 5.——T. Palpanas et al., "Selective Recomputation for Non-Distributive Aggregate Functions," *In Proceedings of VLDB*, 2002.
- 6.——K. Salem et al., "How to Roll a Join: Asynchronous Incremental View Maintenance," *In Proceedings of SIGMOD*, pp. 129-140, 2000.

~~Z. Y. Zhuge et al., "View Maintenance in a Warehousing Environment," In *Proceedings of SIGMOD*, PP. 316-327, May, 1995.~~

### **Contact Information**

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usmaan Saeed whose telephone number is (571)272-4046. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571)272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Application/Control Number: 10/643,644  
Art Unit: 2166

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December 17, 2008

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